

App. No. 10/796,704  
Office Action Dated February 28, 2006

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listing of claims in the application.

Claims 1 and 10 are amended.

Claims 15 and 16 are new.

**Listing of Claims:**

1. (Currently Amended) A semiconductor laser device formed on a tilted substrate composed of a compound semiconductor, comprising an active layer and two cladding layers interposing the active layer therebetween,  
wherein one of the cladding layers forms a mesa-shaped ridge,  
the ridge includes a first region where a width of a bottom portion of the ridge is substantially constant in an optical path direction, and a second region where the width of the bottom portion of the ridge is varied continuously in the optical path direction, and  
the second region is placed between the first region and an end face in an optical path.
2. (Original) The semiconductor laser device according to claim 1, wherein the width of the bottom portion of the ridge in the second region is increased with distance from the first region.
3. (Original) The semiconductor laser device according to claim 1, wherein the second region is placed between the first region and one end face in the optical path, and between the first region and the other end face in the optical path.
4. (Original) The semiconductor laser device according to claim 1, wherein the width of the bottom portion of the ridge in the first region is in a range of 1.8  $\mu\text{m}$  to 2.5  $\mu\text{m}$ .

App. No. 10/796,704

Office Action Dated February 28, 2006

5. (Original) The semiconductor laser device according to claim 1, wherein the width of the bottom portion of the ridge in the second region is in a range of 2.4  $\mu\text{m}$  to 3  $\mu\text{m}$ .
6. (Original) The semiconductor laser device according to claim 1, wherein, at a boundary between the first region and the second region, the width of the bottom portion of the ridge in the first region is substantially the same as that in the second region.
7. (Original) The semiconductor laser device according to claim 1, wherein a difference between the width of the bottom portion of the ridge in the first region and a maximum value of the width of the bottom portion of the ridge in the second region is 0.5  $\mu\text{m}$  or less.
8. (Original) The semiconductor laser device according to claim 1, wherein the active layer is formed of a quantum well structure.
9. (Original) The semiconductor laser device according to claim 1, wherein the active layer in a vicinity of the end face in the optical path is disordered by diffusion of impurities.
10. (Currently Amended) An optical pickup apparatus, comprising a semiconductor laser device and a light-receiving portion for receiving light output from the semiconductor laser device and reflected from a recording medium,  
wherein the semiconductor laser device is formed on a tilted substrate composed of a compound semiconductor, and includes an active layer and two cladding layers interposing the active layer therebetween,  
one of the cladding layers forms a mesa-shaped ridge,  
the ridge includes a first region where a width of a bottom portion of the ridge is substantially constant in an optical path direction, and a second region where the width of the bottom portion of the ridge is varied continuously in the optical path direction, and

App. No. 10/796,704  
Office Action Dated February 28, 2006

the second region is placed between the first region and an end face in an optical path.

11. (Original) The optical pickup apparatus according to claim 10, further comprising a light-splitting portion for splitting the reflected light,

wherein the light-receiving portion receives the reflected light split by the light-splitting portion.

12. (Original) The optical pickup apparatus according to claim 10, wherein the semiconductor laser device and the light-receiving portion are formed on the same substrate.

13. (Original) The optical pickup apparatus according to claim 12, further comprising an optical element,

wherein the optical element reflects light output from the semiconductor laser device in a direction normal to a principal plane of the substrate.

14. (Original) The optical pickup apparatus according to claim 13, wherein the optical element is a reflection mirror.

15. (New) The semiconductor laser device according to claim 1, wherein a predetermined width of the first region prevents occurrence of kink in the first region, and a predetermined width of the second region prevents thermal saturation in the second region.

16. (New) The semiconductor laser device according to claim 1, wherein a length of the first region is 10% to 50% with respect to a resonator length.